Remarks

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and the following remarks. Claims 1-15 are pending in the application. Claims 1, 8, and 13 are independent.

Cited Art

The Action cites Logan, U.S. Patent No. 6,601,018 (hereinafter "Logan").

Claim Rejections under 35 U.S.C. § 101

The Action rejects claims 8-12 under 35 U.S.C. § 101 as allegedly directed toward non-statutory subject matter. The claims are amended herein to specify the system is a computer system comprising at least one physical computing machine. The claims as amended therefore clearly are not directed to merely software per se. The amended claims meet the requirements of § 101.

Claim Rejections under 35 U.S.C. § 102

The Action rejects claims 1-15 under 35 U.S.C. 102(a) as being anticipated by Logan. Applicants respectfully traverse the rejection. The cited art fails to teach or suggest each and every element of the claims.

Claims 1-12

Independent claims 1 and 8 relate to an innovative feature of the present application whereby unit testing is performed across multiple virtual machines. (See, present application at page 3, lines 12-13.) More specifically, claim 1 recites,

> executing a test program to invoke execution of selected units of code of a target program on the specified plurality of the virtual machines;

Similarly, claim 8 recites,

> a test program file to be executed by the virtual machine manager and comprising instructions for invoking execution of the selected units of code of the target program on the specified plurality of the virtual machines

As discussed in the background of the present application, test frameworks available prior to Applicant's invention were not capable of performing unit testing across plural virtual machines. (See, present application at page 3, line 6-9.) The cited art is no different.

Logan fails to teach or suggest any capability for a singular test program to cause execution of code units of a target program in plural separate virtual machines. Logan describes an automatic test framework system. (Logan, at Title.) Logan describes an integrated test environment which utilizes a partition server to provide "a clean test environment for each test suite." (Logan, at column 3, lines 28-34.) The integrated test environment includes a partition build machine 218 that warehouses compressed partition images. (Logan, at column 3, lines 44-48.) Each partition is a compressed image of the software installed on a build machine, which the integrated environment can load onto a client machine to ensure the integrity of the test environment on the machine. (Logan, at column 4, lines 1-28.)

Logan further describes that a test suite refers to a collection of related test cases. (Logan, at column 3, lines 31-32.) The integrated environment has a central repository of test suites. (Logan, at column 7, lines 3-4.) However, it appears that each test suite is run in a single partition loaded on a client machine, and runs its test cases within that partition. (Logan, at column 6, lines 62-63.)

Logan lacks any description of a single test program that is able to cause execution of test units across multiple virtual machines. Again, each test suite in Logan simply runs test cases in one partition loaded on one client machine. Logan therefore fails to teach or suggest a test program that invokes execution of code units in plural virtual machines, as recited in the claims.

For at least this reason, independent claims 1 and 8 (along with claims 2-7 and 9-12 that depend therefrom) should be patentable over this art.

Claims 13-15

Claim 13 relates to a feature of Applicant's multiple virtual machine testing, in which an exception object is generated in response to an exception occurring during test, which exception object identifies the virtual machine on which a failure occurred. More particularly, claim 13 recites, "generating exception objects indicative of at least one of the specified plurality of virtual machines on which the failure occurred."

As discussed above in connection with claims 1-12, Logan fails to teach or suggest any capability to run a test program that exercises tests of code units in plural virtual machines. Because Logan describes a test suite runs in a single partition on a client machine, Logan fails to disclose that an exception object identify the virtual machine in which a failure occurred. Because Logan lacks any suggestion for the test suite to exercise tests on code units in plural virtual machines, there would be no reason for an exception object in Logan to identify a virtual machine in which failure occurred during the testing.

On the topic of exception objects as referenced in claim 6, the Office merely cites to Logan at column 8, lines 35-36. Not surprisingly, this passage in Logan lacks any description to identify the virtual machine in which a failure occurred. The cited description merely states that "the framework on the ITE client 206... catches and deals with exceptions... ."

Because Logan fails to teach or suggest the recited exception object which identifies the virtual machine on which a failure occurred, claim 13 and its dependent claims clearly should be allowable over the cited art.

Interview Request

If the claims are not found by the Examiner to be allowable, the Examiner is requested to call the undersigned attorney to set up an interview to discuss this application.
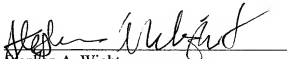
Conclusion

The claims in their present form should be allowable. Such action is respectfully requested.

Respectfully submitted,

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